	Application No.	**Applicant(s)**
Office Action Summary	10/695,549	HAWKES ET AL.
	Examiner	**Art Unit**	
	THOMAS H. STEVENS	2121	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 April 2009</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-5,8-11,13 and 14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3-5,8-11,13 and 14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ----- .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1,3-5, 8-11, 13 and 14 were examined.

Section I: Final Rejection

Specification

2.   The disclosure is objected to because it contains an embedded hyperlink and/or

other form of browser-executable code (pg. 11, lines 18-19, mathengine.com, havok.com.

Applicants are required to delete the embedded hyperlink and/or other form of browser-

executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

4.   Claims 1,3-5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by

Perlin et al., (US Patent 6,285,380; hereafter Perlin). Perlin discloses a system for the

creation of real-time, behavior-based animated actors (abstract).

5.   Claim 1.   A method of simulating (column 19, lines 30-32) a creature (column 4,

lines 37-40) for use in two different complexities (figure 1, elements 101,102,103) of

simulation (column 4, lines 37-40), the method comprising: utilizing a model (using or

utilizing the simulation model; column 5, lines 20-28)of the creature (column 4, lines 37-

40) that comprises at least two portions: a first portion (column 21, line 30) which

contains functions for use in both of said different complexities (figure 1, elements

101,102,103) ("incorporate complex simulation model, column 5, lines 24-25) of

simulation (column 4, lines 37-40); and a second portion (column 21, line 31) comprising

two alternative versions: a first version(suggestion of local versions being used , column

16, lines 1-6) for use in one of said different complexities (figure 1, elements

101,102,103) ("incorporate complex simulation models", column 5, lines 24-25) of

simulation (column 4, lines 37-40), wherein the first version utilizes a neural network

(suggestion of a artificial intelligence associated with simulation human, animal behavior

that encompasses neural functionality, see column 2, lines 18-39 and columns 15-16,

lines 59-67 and 1-7, respectively); and a second version (suggestion of local versions

being used , column 16, lines 1-6) for use in the other of said different complexities

(figure 1, elements 101,102,103) ("incorporate complex simulation models", column 5,

lines 24-25) of simulation (column 4, lines 37-40) wherein said first portion (column 21,

line 30) comprises a behavior selection (behavior engine, element 30)mechanism

arranged to select the behavior of said creature (column 4, lines 37-40) and said second

portion (column 21, line 31) is arranged to execute the selected behavior (behavior

engine, element 30).

Claim 3. A method as claimed in claim 2 1, wherein said behavior selection mechanism

(figure 1, behavior engine) is arranged to select the behavior based upon at least one

of: the current behavioral state(behavior engine, element 30); one or more internal state

variables of the creature(column 4, lines 37-40);

the environment surrounding the creature(column 4, lines 37-40); and one or more

sensory inputs to said creature(column 4, lines 37-40).

Claim 4. A method as claimed in claim 2 1, wherein said behavior

selection mechanism consists of a set of mutually exclusive behavioral states (figure 6,

elements 101,102, and 103 are mutually exclusive to one another).

Claim 5. A method as claimed in claim 1, wherein the second version (suggestion of

local versions being used , column 16, lines 1-6) is for use in the less complex of the

simulations (column 4, lines 37-40), and is arranged to approximate the functionality of

the first version (suggestion of local versions being used , column 16, lines 1-6).

Claim 8.   A method as claimed in claim 1, wherein the first version (not clearly defined

within the disclosure; the Office interprets this limitation local versions being used ,

column 16, lines 1-6) utilizes a three dimensional (column 19, lines 57-65) physical

simulation (column 4, lines 37-40) of an animat (animated actors, title), and the second

version (not clearly defined within the disclosure; the Office interprets this limitation local

versions being used , column 16, lines 1-6) utilizes a parameterized model of the

animat (animated actors, title)to approximate movement.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to
> which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

7.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

     1.   Determining the scope and contents of the prior art.
     2.   Ascertaining the differences between the prior art and the claims at issue.
     3.   Resolving the level of ordinary skill in the pertinent art.
     4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

8.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

9.   Claims 9-11,13 and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Peirlin in view of Official Notice. While Perlin teaches most of the

limitations as set forth in independent claims 9, 13 and 14 for example, they fail to

teach a limitation of a "selected for closer inspection of the process being simulated."

The Office takes official notice of this limitation since one of ordinary skill in the art in

simulation would have the ability to view specific segments of a simulate result, since,

for example Perlin teaches a process in which "enables authors to more easily

choreograph the interaction between the virtual actors and human participants" (column

14, lines 57-59). Logically, if the user is creating these sophisticated tasks, the user

would want analyze the details of the various segments of the simulation.

Claim 9.   A method of simulating activities of a plurality of creature (column 4, lines 37-

40)s, the method comprising utilizing at least two modes of simulation (column 4, lines

37-40): a first mode (e.g., high-level, column 15, lines 24-25) arranged to simulate

(column 19, lines 30-32) the activities of all of said creatures (column 4, lines 37-40);

and a second mode (e.g., low-level, column 15, lines 24-25) arranged to

simulate(column 19, lines 30-32) an activity of at least one of said creatures (column 4,

lines 37-40) at a more detailed level than said first mode (e.g., high-level, column 15,

lines 24-25), wherein a model of a creature (column 4, lines 37-40) simulated in both

modes of simulation (column 4, lines 37-40) comprises at least two portions: a first

portion (column 21, line 30) which contains functions arranged for use in both of said

modes of simulation (column 4, lines 37-40); and a second portion (column 21, line 31)

comprising two alternative versions, (not clearly defined within the disclosure; the Office

interprets this limitation local versions being used , column 16, lines 1-6) a first version

(not clearly defined within the disclosure; the Office interprets this limitation local

versions being used , column 16, lines 1-6) for use in said first mode (e.g., high-level,

column 15, lines 24-25) of simulation (column 4, lines 37-40), and a second version

(suggestion of local versions being used , column 16, lines 1-6) for use in the second

mode (e.g., low-level, column 15, lines 24-25).

Claim 10.   A method of simulating(column 19, lines 30-32) a process at two different

levels of complexity("incorporate complex simulation models", column 5, lines 24-25),

the method comprising: utilizing a model (using or utilizing the simulation model;

column 5, lines 20-28)that comprises at least two portions: a first portion (column 21,

line 30) which contains functions for use in both of said different complexities (figure 1,

elements 101,102,103) of simulation (column 4, lines 37-40); and a second portion

(column 21, line 31) comprising two alternative versions: a first version (not clearly

defined within the disclosure; the Office interprets this limitation local versions being

used , column 16, lines 1-6) for use in one of said different complexities (figure 1,

elements 101,102,103) ("incorporate complex simulation models", column 5, lines 24-

25) of simulation (column 4, lines 37-40); and a second version (not clearly defined

within the disclosure; the Office interprets this limitation local versions being used ,

column 16, lines 1-6) for use in the other of said different complexities (figure 1,

elements 101,102,103) ("incorporate complex simulation models", column 5, lines 24-

25) of simulation (column 4, lines 37-40), wherein the second versions (not clearly

defined within the disclosure; the Office interprets this limitation local versions being

used , column 16, lines 1-6) is for use in the less complex (too broad; the Office

provides an example of behavior engine simply executing three animated characters,

column 16, lines 15-18) of the simulations (column 4, lines 37-40), and is arranged to

approximate the functionality of the first version(not clearly defined within the disclosure;

the Office interprets this limitation local versions being used , column 16, lines 1-6).

Claim 11. A method as claimed in claim 10, further comprising evaluating one

or more conditions to determine a result of a rule for selecting which of the two

alternative versions(not clearly defined within the disclosure; the Office interprets this

limitation local versions being used , column 16, lines 1-6) of the second portion

(column 21, line 31) to use in simulating the process(column 19, lines 30-32).

Claim 13. A method as claimed in claim 10, wherein the first version (suggestion of local

versions being used , column 16, lines 1-6)utilizes a neural network(suggestion of a

artificial intelligence associated with simulation human, animal behavior that

encompasses neural functionality, see column 2, lines 18-39 and columns 15-16, lines

59-67 and 1-7, respectively).

Claim 14.   A simulator device arranged to simulate a creature (column 4, lines 37-40) in

two different complexities (figure 1, elements 101,102,103) ("incorporate complex

simulation models", column 5, lines 24-25) of simulation (column 4, lines 37-40), the

device being arranged to utilize (using or utilizing the simulation model; column 5, lines

20-28)a model of the creature (column 4, lines 37-40) that comprises at least two

portions: a first portion (column 21, line 30) which contains functions used in both of

said different complexities (figure 1, elements 101,102,103) ("incorporate complex

simulation models", column 5, lines 24-25) of simulation (column 4, lines 37-40); and a

second portion (column 21, line 31) comprising two alternative versions, (not clearly

defined within the disclosure; the Office interprets this limitation local versions being

used , column 16, lines 1-6) a first version(not clearly defined within the disclosure; the

Office interprets this limitation local versions being used , column 16, lines 1-6) used in

one of said different complexities (figure 1, elements 101,102,103) ("incorporate

complex simulation models", column 5, lines 24-25) of simulation (column 4, lines 37-

40), and second version (not clearly defined within the disclosure; the Office interprets

this limitation local versions being used , column 16, lines 1-6) used in the other of said

different complexities (figure 1, elements 101,102,103) ("incorporate complex

simulation models", column 5, lines 24-25) of simulation (column 4, lines 37-40),

wherein the second version (not clearly defined within the disclosure; the Office

interprets this limitation local versions being used , column 16, lines 1-6) is for use in

the less complex (too broad; the Office provides an example of behavior engine simply

executing three animated characters, column 16, lines 15-18) of the simulations

(column 4, lines 37-40), and is arranged to approximate the functionality of the first

version(suggestion of local versions being used , column 16, lines 1-6).

Section II: Response to Arguments

Claim 6 into claim 1

10.   The condition for allowance of the limitations into claim 1 is rescinded.

102(b)

11.   Applicants are thanked for addressing this issue. Its obvious applicants are steadfast on verbatim of the limitations while the Office's position is both verbatim and equivalence. Firstly to utilize something, as defined by www.dictionary.com is to put to use, thus simulating or the simulation of an event. In this instance, Perlin discloses using an animation engine that utilizes descriptions of atomic animated actions with a behavior engine. The connection or relationship relative to the prior art is the same as the said creatures in the application to which the creatures are utilized by the behavior engine of Perlin (also, the simulation modeling is stated by Perlin in column 5, lines 21-31, in particular line 25). The claims are simple regarding the first and second portions to which are broad enough to be interpreted in any number of variations. To repeat, www.dictionary.com defines complexity as composed of many interconnected parts. Perlin denotes three interconnected parts in figure 1 i.e., elements 101,102 and 103 of this network that are directly linked to the simulation. Rejection is maintained.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicants' disclosure:

- 6,446,055 discloses a process control system.

13.   Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715.

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Albert Decady (571-272-3819). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

/Thomas H. Stevens/

Examiner, Art Unit 2121

Ramesh Patel

Primary Patent Examiner, Art Unit 2121

/Ramesh B. Patel/

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